OIPE JC112 SCHEC
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TRANSMITTAL FORM

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Total Number of Pages in This Submission

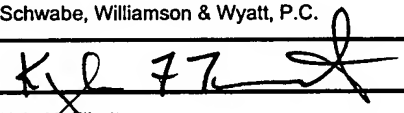
Application Number	10/038,412
Filing Date	October 25, 2001
First Named Inventor	Bellew
Art Unit	2163
Examiner Name	Fernandes, Cheryl M.
Attorney Docket Number	109870-130117

ENCLOSURES *(Check all that apply)*

- [x] Fee Transmittal Form
  - [x] Fee Attached
- [ ] Amendment/Reply
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [ ] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Reply to Missing Parts/ Incomplete Application
  - [ ] Reply to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [ ] Petition
- [ ] Petition to Convert to a Provisional Application
- [ ] Power of Attorney, Revocation Change of Correspondence Address
- [ ] Terminal Disclaimer
- [ ] Request for Refund
- [ ] CD, Number of CD(s) _____
  - [ ] Landscape Table on CD
- [ ] After Allowance Communication to TC
- [ ] Appeal Communication to Board of Appeals and Interferences
- [x] Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- [ ] Proprietary Information
- [ ] Status Letter
- [x] Other Enclosure(s) (please Identify below):
  Return Receipt Postcard

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Schwabe, Williamson & Wyatt, P.C.		
Signature			
Printed name	Kyle H. Flindt		
Date	May 16, 2005	Reg. No.	42,539

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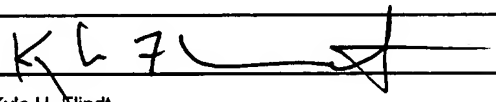
Signature			
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This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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OIPE JC#12 MAY 18 2005 PATENT & TRADEMARK OFFICE

PTO/SB/17 (12-04v2)
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Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL
For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT	($)	500

Complete if Known	
Application Number	10/038,412
Filing Date	October 25, 2001
First Named Inventor	Bellew
Examiner Name	Fernandes, Cheryl M.
Art Unit	2163
Attorney Docket No.	109870-130117

METHOD OF PAYMENT (check all that apply)

☑ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☑ Deposit Account Deposit Account Number: 500393 Deposit Account Name: Schwabe Williamson et al.

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, **except for the filing fee**

☑ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☑ Credit any overpayments

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FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

	FILING FEES		SEARCH FEES		EXAMINATION FEES		
		Small Entity		Small Entity		Small Entity	
Application Type	Fee ($)	Fee ($)	Fee ($)	Fee ($)	Fee ($)	Fee ($)	Fees Paid ($)
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee ($)	Small Entity Fee ($)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee ($)	Fee Paid ($)
_____ - 20 or HP =	_____	x _____	= _____

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims	Extra Claims	Fee ($)	Fee Paid ($)
_____ - 3 or HP =	_____	x _____	= _____

HP = highest number of independent claims paid for, if greater than 3.

Multiple Dependent Claims	
Fee ($)	Fee Paid ($)
_____	_____

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee ($)	Fee Paid ($)
_____ - 100 =	_____	/ 50 = _____ (round up to a whole number)	x _____	= _____

4. OTHER FEE(S)

	Fees Paid ($)
Non-English Specification, $130 fee (no small entity discount)	
Other (e.g., late filing surcharge): Appeal Brief	500

SUBMITTED BY

Signature	Kyle H. Flindt	Registration No. (Attorney/Agent) 42,539	Telephone 503 222 9981
Name (Print/Type)	Kyle H. Flindt		Date May 16, 2005

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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MAY 18 2005
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Docket No.: 109870-130117 **MAIL STOP: APPEAL BRIEF-PATENTS**

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By: _____ Date: May 16, 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Before the Board of Patent Appeals and Interferences

Applic. No.:		10/038,412	Confirmation No.: 7051
Inventor	:	Matthew A. Bellew	
Filed	:	October 25, 2001	
Title	:	Multi-Part Looked-Up Table Field And Its Use In Data Processing Operations Involving Multiple Tables Of A Relational Database	
Art Unit	:	2163	
Examiner	:	Cheryl M. Fernandes	
Customer No.	:	25,943	

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BRIEF ON APPEAL

Dear Sir:

This appeal arises from a final decision by the Examiner in the Office Action, dated December 8, 2004. The final decision was in response to arguments filed on August 19, 2004, in response to an earlier office action, mailed May 26, 2004.

Appellants response, filed on March 8, 2005 under 37 CFR 1.116, to the final decision dated December 8, 2004, amended claim 19 to correct previously

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undetected grammatical informalities and was accepted in the Advisory Action dated April 5, 2005.

Appellants submit this *Brief on Appeal* in triplicate, including payment in the amount of $500.00 to cover the fee for filing the *Brief on Appeal*. Appellants respectfully request consideration of this appeal by the Board of Patent Appeals and Interferences for allowance of the present patent application.

Real Party in Interest:

This application is assigned to BEA Systems, Inc., having a principal place of business at 2315 North First Street, San Jose, California 95131. The assignment is pending recordation at the United States Patent and Trademark Office.

Related Appeals and Interferences:

To the best of Appellants' knowledge, there are no related appeals or interference proceedings currently pending which would directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

Status of Claims:

Claims 1-38 are rejected and are under appeal. Claims 1-38 were pending and were rejected in the Final Office Action dated December 8, 2004. Claims 1-38 are pending, and are reproduced, as pending, in Appendix A.

Status of Amendments:

An after final response (*Response under 37 CFR § 1.116*) was filed on March 8, 2005. Claim 19 was amended to correct a previously undetected informality. A *Notice of Appeal* was submitted on March 8, 2005. The Advisory Action dated April 5, 2005 allowed entry of the proposed amendment to claim 19.

Summary of the Invention:

As stated in the first paragraph on page 1 of the specification of the instant application, the invention relates to the field of data processing. Embodiments of the invention relate to data processing techniques associated with data processing operations.

In addition, at least one embodiment of the invention relates to an apparatus having a processor coupled to a storage medium configured to execute programming instructions to parse portions of a data processing statement and to identify referenced table field or fields and associated basis and target tables so as to generate a SQL statement having field or fields selected from the basis table, a FROM clause, one or more fields from one or more target tables when necessary and one or more JOIN clauses along with one or more corresponding conditional ON clauses. Embodiments of the invention further relate to a method of performing the data processing operation of a relational database having looked table fields as described with respect to the above identified apparatus.

Moreover, at least one embodiment of the invention further relates to a method of data processing operation to present a first plurality of fields of a first table, to receive a selection of a first field of the first plurality of fields, to determine if selected first field is a first designated look-up field for looking up a first one or more of a second plurality of fields of a second table, and if so determined, to present the second plurality of fields for selection for use in the data processing operation. Embodiments of the invention further relate to an apparatus performing the data processing operation as described with respect to the above identified method.

Appellant explained in "Overview" on page 6 of the specification that, referring now in detail to Figure 1 of the drawings, there is a block diagram illustrating an overview of the present invention in accordance with one embodiment, including an application generator incorporated with the teachings of the present invention. An application generator **102** includes a particular input component **104** associated with a data processing operation, and SQL statement generator **106**. The application generator **102** is advantageously equipped to present fields of a table for selection by a user to include in the data processing operation. SQL statement generator **106** is advantageously equipped to support looked-up table fields, expressed in multi-part form of the present invention. The application generator **102** generates applications **108** including among others SQL statements **110** useful in creating various tables **116** to store data inside relational database **114**. Many of these created tables **116** may be accessed by SQL statements **110**, such as SELECT, through the relational database management system **112**.

Appellant further explained on page 9 of the specification that the relationship between the various basis and target tables are illustrated with respect to Figure 2. As illustrated, the multi-part looked-up table field of the present invention may be expressed as a first look-up field part **222** in a basis table and a second part corresponding to looked-up field **224** in a target table concatenated together using a special character **226**. The look-up field **204** is a member of basis table **202**, whereas looked-up field **214** is a member of the target table **206**. As illustrated, both tables include other fields **206** and **216**.

References Cited:

U.S. Publication No. 2002/0013779 to *Sridhar*, published January 31, 2002 (hereinafter *Sridhar*); and

U.S. Patent No. 5,619,688 to *Bosworth, et al.*, issued April 8, 1997 (hereinafter *Bosworth*).

Issues Presented:

I. Whether or not claims 9-14, 19, 28-33 and 38 are anticipated by *Sridhar* under 35 U.S.C. §102(e).

II. Whether or not claims 1-8, 15-18, 20-27 and 34-38 are obvious over *Sridhar* and *Bosworth* under 35 U.S.C. §103(a).

III. Whether or not *Sridhar* and *Bosworth* can be properly combined under 35 U.S.C. §103(a).

Grouping of Claims:

Claims 1, 9, 20 and 28 are independent. Claims 2-8 depend on claim 1. Claims 10-19 depend on claim 9. Claims 21-27 depend on claim 20. Claims 29-38 depend on claim 28. Claims 2-8 and 20-27 stand or fall with claims 1. Claims 10-19 and 28-38 stand or fall with claim 9.

Arguments:

1. Rejection of claims 9-14, 19, 28-33 and 38 under 35 U.S.C. §102(e) was improper because *Sridhar* failed to teach each and every limitation

As discussed in detail below, *Sridhar* fails to teach at least the required limitations of **determining whether the selected first field is a designated look-up field for looking up ... a second plurality of fields of a second table** as recited in claim 9. *Sridhar* also fails to teach or suggest, **upon determining that the first field is the designated look-up field, presenting the second plurality of fields for selection for use in the data processing operation** as further recited in claim 9.

It is well settled that anticipation under 35 U.S.C. §102(e) requires the disclosure in a signal piece of prior art to teach **each and every** limitation of a claimed invention. Electro Med. Sys. S.A. v. Cooper Life Sciences, 34 F.3d 1048, 1052, 32 USPQ2d 1017, 1019 (Fed. Cir. 1994). More specifically, MPEP 2131 states, "TO ANTICIPATE A CLAIM, THE REFERENCE MUST TEACH EVERY ELEMENT OF THE CLAIM" and "a claim is anticipated only if each and every element as set forth

in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Thus, to anticipate the present invention, *Sridhar* must disclose every element recited in the pending claims. Claim 9 recites as follows:

9. A method comprising:

presenting a first plurality of fields of a first table for selection for use in a data processing operation;

receiving a selection of a first field that is a member of said first fields;

determining whether said selected first field is a first designated look-up field for looking up first one or more of a second plurality of fields of a second table;

presenting said second plurality of fields for selection for use in said data processing operation, if it is determined that said selected first field is a first designated look-up field for looking up first one or more of said second plurality of fields of said second table.

Independent Claim 28 includes similar language to claim 9.

Accordingly, prior to presenting the second group of fields from a second table along with the previously presented first plurality of fields of a first table in the data processing operation, the selected field from the first table must be identified as a first designated look-up field.

In contrast, *Sridhar* fails to disclose this required limitation, rather it discloses a method of displaying data schema table information and relationships, allowing a web developer to select these displays, and generating the necessary backend logic for the developer to use the selected displays. *See Sridhar* page 1, paras. 5-9. In particular, *Sridhar* teaches "automatically presenting relationship information between a first table and a second table of a database[, and] includes ascertaining an existence of a first foreign key relationship between the first table and the second table." *Sridhar*, page 1, para. 9. This presentation of information, however, does not teach the specific method disclosed in claim 9 of the present invention of "presenting ... a first table" and then "determining" if a particularly selected field of the first table is a "designated look-up field" for other fields in a separate table.

In the present invention, the first table has both "fields for selection for use in said data processing operation" and a selected field that might be a designated look-up field to a second table. As such, the look-up field must be part of the first table.

In *Sridhar*, "link tables" are created separate from the two data tables. There is no internal look-up field as required by claim 9. More specifically, *Sridhar* teaches using one or more "link tables" (See paras. 34. 86-88, and Figs. 1, 9) to describe the relationship between separate tables. The present invention, on the other hand, utilizes the characteristics of a "selected field" from a first table to determine whether the information from a second table needs to be looked-up and presented.

Therefore, for at least the reasons set forth above, Appellants submit that *Sridhar* does not anticipate Claim 9 under § 102(e). As such, Appellants submit that Claim 9 is in proper form for allowance and request that the rejection be removed.

As with Claim 9, Claims 10-14, 19, 29-33 and 38 are similarly rejected under § 102(e) as anticipated by *Sridhar*. Appellants submit that Claims 10-14, 19, 28-33 and 38 contain limitations similar to Claim 9. Thus, for at least the reasons set forth

above with respect to Claim 9, Appellants believe that Claims 10-14, 19, 28-33 and 38 are likewise in proper form for allowance.

Claims 10-11 and 19, and 29 and 28 depend on Claims 9 and 28, respectively. Due at least in part on their dependency, Appellants submit that claims 9-14, 19, 28-33 and 38 are likewise in proper form for allowance.

2. Rejection of claims 1-8, 15-18, 20-27 and 34-38 under 35 U.S.C. §103(a) was improper because claims are not obvious over *Sridhar* and *Bosworth*

As discussed in detail below, the proposed combination of *Sridhar* and *Bosworth* fail to show the claim limitation identifying table fields referenced in a data processing statement ... determining whether the identified table field is a looked-up field for target tables or a non-looked up field in a basis table and generating a SQL statement as recited claim 1. The SQL statement having field or fields selected from the basis table, a FROM clause, when necessary one or more fields from one or more target tables and one or more JOIN clauses along with one or more corresponding conditional ON clauses as further recited in claim 1.

To establish a *prima facie* case of obviousness under 35 U.S.C. §103(a), three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or

references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Appellant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Thus, for the present invention to be obvious, *Sridhar* and *Bosworth* must exhibit the requisite motivation to make the combination (discussed in more detail in item 3 below), an expectation of success, and disclose every element recited in the pending claims. Claim 1 recites as follows:

1. A method comprising:

parsing a data processing statement;

identifying table field or fields referenced in said data processing statement;

for each identified table field, determining whether the table field is a looked-up field;

identifying a basis table of which non-looked up ones of said identified table field or fields are members;

identifying one or more target tables from which said looked-up one or ones of said identified table field or fields are to be looked up;

generating a SQL statement, including with said generated SQL statement field or fields to be selected from said basis table and a FROM clause enumerating said basis table, and if the data processing statement was determined to contain one or more fields to be looked up from one or more target tables, further including among said field or fields to be

> selected said one or more fields to be looked up from said one or more target tables, and one or more JOIN clauses respectively joining said basis table and said one or more target tables, and one or more corresponding ON clauses respectively specifying one or more corresponding conditions on which rows of said basis and said one or more target tables are to be joined, each of said one or more conditions comprising a corresponding look-up field.

Independent Claim 20 includes similar language to claim 1.

Accordingly, the generated SQL statement includes a field or fields selected from the basis table, a FROM clause, when necessary one or more fields from one or more target tables and one or more JOIN clauses along with one or more corresponding conditional ON clauses.

In contrast to the present invention, *Sridhar* teaches "a computer-implemented method for facilitating website development by a website developer from a supplied data schema." *Sridhar* page 1, para. 5. More specifically, *Sridhar* teaches methods of allowing the website developer to select between various data views generated from the data schemas, generating backend logic to support each data view, alternately generating the data views from a user data model, allowing the user to select presented relationships between tables in the data schema, and automatically extracting the SQL statements from the selected relationships. *See Sridhar* page 1, paras. 5-9.

In contrast, claim 1 specifies that the "table field or fields" are identified in a ***parsed data processing statement***. While the previously identified final Office Action asserts that *Sridhar* discloses parsing a data statement in para. 29, Figs. 3-4 and 14. Appellant asserts that the cited references do not teach using a ***parsed data processing statement*** to identify table fields. In particular, the extracted data that is manipulated in paragraph 29 of *Sridhar* is merely data selected by the user from a plurality of data views to be extracted for a separate data output. As these ***views*** in *Sridhar* are either generated from "all possible user ***data models***" that are generated from the data schema or from edited developer-specified ***data models***, which do not read on "a data processing ***statement***" that specifies one or more table fields as recited in claim 1 of the instant application. In addition, because *Sridhar* infers all links between tables in generating the user data models (*Sridhar*, page 2, para. 29 – page 3, para. 30), *Sridhar* can not teach "determining whether the table field is a look up table" as recited in claim 1 of the present application.

More specifically, with these pre-generated or edited data models of *Sridhar*, a determination of whether a particular field is a look-up field is useless, because all links have already been inferred/created in generating all data models or already specified by the developer in using a specifically edited model.

In addition, the final Office Action states that the supplier and parts table of Figure 4 of *Sridhar* reads on the basis and target tables specified by claim 1, respectively. However, *Sridhar* teaches that these two tables are linked by a link table (Fig. 1) which describes the attributes of the relationship between supplier and parts. *See*

Sridhar page 3, para. 34. Thus, unlike the present invention, which determines whether **a specified table field is a designated look-up field** that references another set of fields in a second table, *Sridhar* teaches using a **third table** or link table between the two data tables to store information about relationships between tables. *See* e.g., *Sridhar* Figure 1, page 7, para. 65.

Moreover, the ***identification*** of a link table or "join terms" as indicated in *Sridhar* can not read on the ***generation*** of a SQL statement with JOIN clauses as recited in claim 1 of the instant application, because "link" and "join" are separate SQL functions.

Additionally, Examiner acknowledges that Sridhar does not teach or otherwise disclose including with a ***generated SQL statement*** field or fields to be selected from a basis table and a FROM clause enumerating said basis table, and one or more corresponding ON clauses respectively specifying one or more corresponding conditions on which rows of said basis and said one or more target tables are to be joined, each of said one or more conditions comprising a ***corresponding look-up field***. The final office action, however, cites *Bosworth* as showing these elements of claim 1 that are deficient in *Sridhar*.

In contrast to the present invention, the *Bosworth* reference discloses a method of constructing data queries that make changes to data stored in a database in a simple and efficient manner. *See Bosworth* col. 1, lines 6-10, and col. 2 lines 55-56. In particular, *Bosworth* does not teach or otherwise disclose determining whether a selected table field is a looked-up field that references other fields in a separate

table, nor does it teach automatically generating SQL statements. As such, it does not cure the above mentioned deficiencies of *Sridhar*.

Even assuming, *arguendo*, that *Sridhar* did not contain the above mentioned deficiencies, *Bosworth* does not teach the subject matter of the acknowledged deficiencies in *Sridhar*. In particular, *Bosworth*'s use of the SQL directives, as cited in the office action, relate to the formation of a query table from two tables, and does not teach nor provide a method for generating SQL statements to present looked-up fields from a target table to be selected along with fields from a basis table. In particular, the fact that *Bosworth* shows a set of SQL expressions in demonstrating a query with references to two tables, does not teach or anticipate the specific method of the claimed invention, because the novel method of claim 1 specifies an arrangement of SQL statements to present looked-up fields from a target table to be selected along with fields from a basis table.

For example, an instructional book on how to use C++ directives would not read on a novel computer program even though all the terms of the program are taught in the reference, because the novel method of the program is the arrangement of the terms in a manner to achieve a desired result. Thus, since *Bosworth* merely discusses how some SQL terms would work in a query, *Bosworth* cannot teach the separate arrangement of those terms in claim 1. Thus, for at least the reasons set out above, and the deficiencies of *Sridhar*, claim 1 is non-obvious and patentable over *Sridhar*. *Bosworth* does not cure the above discussed deficiencies nor the acknowledged

deficiencies of *Sridhar*, therefore claim 1 remains patentable over *Sridhar*, even when combined with *Bosworth*, and is in proper form for allowance.

Clearly, the combination of *Sridhar* and *Bosworth* does not show "determining whether the table field is a looked-up field" as recited in claim 1 of the instant application.

3. Rejection of claims 1-8, 15-18, 20-27 and 34-38 under 35 U.S.C. §103(a) was improper because the proposed combination of *Sridhar and Bosworth* rely on impermissible hindsight without sufficient motivation to make the combination

"Obviousness can not be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination". In re Bond, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990). "Under Section 103 teachings of references can be combined **only** if there is some suggestion or incentive to do so." ACS Hospital Systems, Inc. v. Montefiore Hospital et al., 221 USPQ 929, 933, 732 F.2d 1572 (Fed. Cir. 1984) (emphasis original). "Although a reference need not expressly teach that the disclosure contained therein should be combined with another, the showing of combinability, in whatever form, must nevertheless be '**clear and particular**.'" Winner Int'l Royalty Corp. v. Wang, 53 USPQ2d 1580, 1587, 202 F.3d 1340 (Fed. Cir. 2000) (emphasis added; citations omitted); Brown & Williamson Tobacco Corp. v. Philip Morris, Inc., 56 USPQ2d 1456, 1459 (Fed. Cir. Oct. 17, 2000). There is no "clear and particular" teaching or

suggestion in *Sridhar* to incorporate the features of *Bosworth*, and there is no teaching or suggestion in *Bosworth* to incorporate the features of *Sridhar*.

In establishing a *prima facie* case of obviousness, it is incumbent upon the Examiner to provide a reason why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985). To this end, the requisite motivation must stem from some teaching, suggestion, or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the Appellants' disclosure. See, for example, Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1052; 5 USPQ2d 1434, 1439 (Fed. Cir. 1988), *cert. den.*, 488 U.S. 825 (1988). In the instant case, the Examiner has not provided the requisite reason why one of ordinary skill in the art would have been led to modify *Sridhar* or *Bosworth* or to combine *Sridhar*'s and *Bosworth*'s teachings to arrive at the claimed invention. Further, the Examiner has not shown the requisite motivation from some teaching, suggestion, or inference in *Sridhar* or *Bosworth* or from knowledge available to those skilled in the art. As a result, one concludes that the Examiner's combination was only a result of hindsight reconstruction.

"It is impermissible [for the Examiner] to engage in a hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill the gaps. . . . The references **themselves** must provide some teaching whereby the applicant's combination would have been

obvious." In re Gorman, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991) (emphasis added). Here, no such teaching is present in the cited references. Further, Appellants contend that there is no way the Examiner could find motivation to combine the cited prior art references without deriving such teaching, suggestion, or incentive from hindsight judgment in view of the instant application.

The honorable Board is therefore respectfully urged to reverse the final rejection of the Primary Examiner.

Respectfully submitted,

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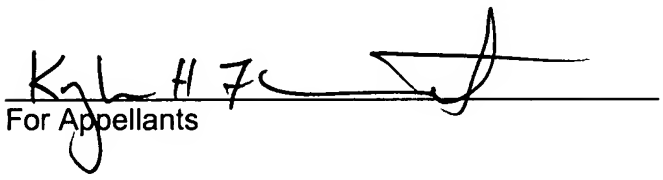

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Appendix A - Appealed Claims:

Claim 1 (original): A method comprising:

parsing a data processing statement;

identifying table field or fields referenced in said data processing statement;

for each identified table field, determining whether the table field is a looked-up field;

identifying a basis table of which non-looked up ones of said identified table field or fields are members;

identifying one or more target tables from which said looked-up one or ones of said identified table field or fields are to be looked up;

generating a SQL statement, including with said generated SQL statement field or fields to be selected from said basis table and a FROM clause enumerating said basis table, and if the data processing statement was determined to contain one or more fields to be looked up from one or more target tables, further including among said field or fields to be selected said one or more fields to be looked up from said one or more target tables, and one or more JOIN clauses respectively joining said basis table and said one or more target tables, and one or more corresponding ON clauses respectively specifying one or more corresponding conditions on which rows of said basis and said one or more target tables are to be joined, each of said one or more conditions comprising a corresponding look-up field.

Claim 2 (original): The method of claim 1, wherein said determining of whether a table field is a looked-up field comprises determining whether the table field is a multi-part table field including at least a first part corresponding to a look-up field, and a second part corresponding to a field to be looked up, concatenated with said first part in a predetermined manner.

Claim 3 (original): The method of claim 2, wherein said determining of whether a table field is a looked-up field further comprises upon determining that the table field is a multi-part table field, determining whether the second part is a look-up

field, with a third part corresponding to a looked up field concatenated with said second part in a predetermined manner.

Claim 4 (original): The method of claim 2, wherein said second part corresponding to a field to be looked up, is concatenated with said first part corresponding to a look-up field, employing one or more predetermined special characters.

Claim 5 (original): The method of claim 4, wherein said one or more predetermined special characters comprises at least a selected one of ".", ":", "~", "!", "@", "#", "$", "%", "^", "&", "*", "-", "+", "=", "?", "<" and ">".

Claim 6 (original): The method of claim 1, wherein said JOIN clause is an OUTER JOIN clause.

Claim 7 (original): The method of claim 1, wherein said JOIN clause is an INNER JOIN clause.

Claim 8 (original): The method of claim 1, wherein said SQL statement is a selected one of a SELECT, an INSERT, an UPDATE and a DELETE statement.

Claim 9 (previously presented): A method comprising:

presenting a first plurality of fields of a first table for selection for use in a data processing operation;

receiving a selection of a first field that is a member of said first fields;

determining whether said selected first field is a first designated look-up field for looking up first one or more of a second plurality of fields of a second table;

presenting said second plurality of fields for selection for use in said data processing operation, if it is determined that said selected first field is a first designated look-up field for looking up first one or more of said second plurality of fields of said second table.

Claim 10 (previously presented): The method of claim 9, wherein each of said second plurality of fields is presented in a multi-part form, including a first part corresponding to said first look-up field, and a second part corresponding to one of a second one or more fields to be looked up, and where said second part is concatenated with said first part in a predetermined manner.

Claim 11 (previously presented): The method of claim 9, wherein said method further comprises

receiving a selection of a second field that is a member of said second fields;

determining whether said selected second field is a second designated look-up field for looking up a second one or more of a third plurality of fields of a third table; and

presenting said third plurality of fields for selection if it is determined that said selected second field is a second designated look-up field for looking up a second one or more of said third plurality of fields of said third table.

Claim 12 (original): The method of claim 11, wherein

each of said second plurality of fields is presented in a multi-part form, including a first part, said first look-up field, and a second part, a corresponding one of said first one or more fields to be looked up, concatenated with said first part in a predetermined manner; and

each of said third plurality of fields is presented in a multi-part form, including said first and second parts, and a third part, a corresponding one of said second one or more fields to be looked up, concatenated with said second part in a predetermined manner.

Claim 13 (original): The method of claim 10, wherein said second part, a corresponding one of said first one or more fields to be looked up, is concatenated with said first part, said first look-up field, employing one or more predetermined special characters.

Claim 14 (original): The method of claim 13, wherein said one or more predetermined special characters comprises at least a selected one of ".", ":", "~", "!", "@", "#", "$", "%", "^", "&", "*", "-", "+", "=", "?", "<" and ">".

Claim 15 (original): The method of claim 9, wherein the method further comprises generating a SQL statement, including with said generated SQL statement field or fields to be selected from said first table and a FROM clause enumerating said first table, and if one or more of said fields to be looked up from said second table are also selected, further including among said field or fields to be selected said one or more fields to be looked up from said second table, and a JOIN clause joining said second table to said first table, and an ON clause specifying a condition on which rows of said second and said first tables are to be joined, said condition comprising said look-up field.

Claim 16 (original): The method of claim 15, wherein said JOIN clause is an OUTER JOIN clause.

Claim 17 (original): The method of claim 15, wherein said JOIN clause is an INNER JOIN clause.

Claim 18 (original): The method of claim 15, wherein said SQL statement is a selected one of a SELECT, an INSERT, an UPDATE and a DELETE statement.

Claim 19 (currently amended): The method of claim 9, wherein the method further comprises

specifying said first plurality of fields of said first table; ~~and~~

designating one or more of said specified first fields as look-up fields; and

specifying target tables for said designated look-up fields.

Claim 20 (original): An apparatus comprising:

storage medium having stored therein programming instructions, when executed, operate the apparatus to

parse a data processing statement,

identify table field or fields referenced in said data processing statement,

determine, for each identified table field, whether the table field is a looked-up field,

identify a basis table of which non-looked up ones of said identified table field or fields are members,

identify one or more target tables from which said looked-up one or ones of said identified table field or fields are to be looked up, and

generate a SQL statement, including with said generated SQL statement field or fields to be selected from said basis table and a FROM clause enumerating said basis table, and if the data processing statement was determined to contain one or more fields to be looked up from one or more target tables, further including among said field or fields to be selected said one or more fields to be looked up from said one or more target tables, and one or more JOIN clauses respectively joining said basis table and said one or more target tables, and one or more corresponding ON clauses respectively specifying one or more corresponding conditions on which rows of said basis and said one or more target tables are to be joined, each of said one or more conditions comprising a corresponding look-up field; and

one or more processors coupled to the storage medium to execute the programming instructions.

Claim 21 (original): The apparatus of claim 20, wherein said programming instructions, when executed, enable the apparatus to determine whether a table field is a looked-up field by determining whether the table field is a multi-part table field including at least a first part corresponding to a look-up field, and a second part corresponding to a field to be looked up, concatenated with said first part in a predetermined manner.

Claim 22 (original): The apparatus of claim 21, wherein said programming instructions, when executed, enable the apparatus to, upon determining that the table field is a multi-part table field, determine whether the second part is also a

look-up field, with a third part corresponding to a looked up field concatenated with said second part in a predetermined manner.

Claim 23 (original): The apparatus of claim 22, wherein said second part corresponding to a field to be looked up, is concatenated with said first part corresponding to a look-up field, employing one or more predetermined special characters.

Claim 24 (original): The apparatus of claim 23, wherein said one or more predetermined special characters comprises at least a selected one of ".", ":", "~", "!", "@", "#", "$", "%", "^", "&", "*", "-", "+", "=", "?", "<" and ">".

Claim 25 (original): The apparatus of claim 20, wherein said JOIN clause is an OUTER JOIN clause.

Claim 26 (original): The apparatus of claim 20, wherein said JOIN clause is an INNER JOIN clause.

Claim 27 (original): The apparatus of claim 20, wherein said SQL statement is a selected one of a SELECT, an INSERT, an UPDATE and a DELETE statement.

Claim 28 (previously presented): An apparatus comprising:
storage medium having stored therein a plurality of programming instructions, when executed, operate the apparatus to
present a first plurality of fields of a first table for selection for use in a data processing operation,
receive a selection of a first field that is a member of said first fields,
determine whether said selected first field is a first designated look-up field for looking up first one or more of a second plurality of fields of a second table,
present said second plurality of fields for selection for use in said data processing operation, if it is determined that said selected first field is

a first designated look-up field for looking up first one or more of said second plurality of fields of said second table; and

at least one processor coupled to the storage medium to execute the programming instructions.

Claim 29 (previously presented): The apparatus of claim 28, wherein said programming instructions, when executed, operate the apparatus to present each of said second plurality of fields in a multi-part form, including a first part corresponding to said first look-up field, and a second part corresponding to one of said first one or more fields to be looked up, where said second part is concatenated with said first part in a predetermined manner.

Claim 30 (previously presented): The apparatus of claim 29, wherein said programming instructions, when executed, further operate the apparatus to

receive a selection of a second field that is a member of said second fields;

determine whether said selected second field is a second designated look-up field for looking up a second one or more of a third plurality of fields of a third table; and

present said third plurality of fields for selection if it is determined that said selected second field is a second designated look-up field for looking up a second one or more of said third plurality of fields of said third table.

Claim 31 (original): The apparatus of claim 30, wherein said programming instructions, when executed, operate the apparatus to present each of said second plurality of fields is presented in a multi-part form, including a first part, said first look-up field, and a second part, a corresponding one of said first one or more fields to be looked up, concatenated with said first part in a predetermined manner; and

each of said third plurality of fields is presented in a multi-part form, including said first and second parts, and a third part, a corresponding one of said second one or more fields to be looked up, concatenated with said second part in a predetermined manner.

Claim 32 (original): The apparatus of claim 29, wherein said second part, a corresponding one of said first one or more fields to be looked up, is concatenated with said first part, said look-up field, employing one or more predetermined special characters.

Claim 33 (original): The apparatus of claim 32, wherein said one or more predetermined special characters comprises at least a selected one of ".", ":", "~", "!", "@", "#", "$", "%", "^", "&", "*", "-", "+", "=", "?", "<" and ">".

Claim 34 (original): The apparatus of claim 28, wherein the programming instructions further operate the apparatus to generate a SQL statement, including with said generated SQL statement field or fields to be selected from said first table and a FROM clause enumerating said first table, and if one or more of said fields to be looked up from said second table are also selected, further including among said field or fields to be selected said one or more fields to be looked up from said second table, and a JOIN clause joining said second table to said first table, and an ON clause specifying a condition on which rows of said second and said first tables are to be joined, said condition comprising said look-up field.

Claim 35 (original): The apparatus of claim 28, wherein said JOIN clause is an OUTER JOIN clause.

Claim 36 (original): The apparatus of claim 28, wherein said JOIN clause is an INNER JOIN clause.

Claim 37 (original): The apparatus of claim 28, wherein said SQL statement is a selected one of a SELECT, an INSERT, an UPDATE and a DELETE statement.

Claim 38 (original): The apparatus of claim 28, wherein the programming instructions, when executed, further operate the apparatus to

specify said first plurality of fields of said first table,

designate one or more of said specified first fields as look-up fields, and

specify target tables for said designated look-up fields.